

Appl. No. 09/818,427
Amdt. dated May 23, 2006
Reply to Office Action of January 11, 2006

REMARKS

Claims 13, 16-23, 25, 26, 29-35 and 37-43 are currently pending in this application. Claims 13, 16-23, 31, 35, 37 and 39 have been amended, claims 15, and 24 have been cancelled and new claims 42 and 43 have been added. No new matter has been added to this application.

Rejection of Claims 13, 16-23, 25, 26, 29-35 and 37-41 under 35 U.S.C. § 101

The Examiner has rejected claims 13, 16-23, 25, 26, 29-35 and 37-41 under 35 U.S.C. § 101 because the Examiner alleges that the claimed invention is directed to non-statutory subject matter. The Examiner contends that the claims do not claim the video and graphics overlay module and stereo display which allow the user to visualize the results of the calculations made in the graphics rendering module. The Examiner argues that the claims do not claim the practical utility of the invention but instead claim the abstract results of the graphics rendering module. Applicants respectfully traverse the rejection.

The present invention is directed to instrument guidance for interventional and surgical procedures. Applicants have amended claims 13 and 16 to recite a method for augmented reality guided instrument positioning in which a graphics path guide is overlaid on a view of a real instrument and real object in order to guide the real instrument to a real target on the real object. Claim 23 has been amended to recite a method for virtual reality guided instrument positioning in which a rendered virtual axis marker and virtual target point are used to determine a virtual line of sight as a virtual path for a virtual instrument that corresponds to the path for the real instrument to reach the target in the real object. Applicants respectfully submit, that the claims, as amended, are directed to methods for augmented reality instrument guided positioning and virtual reality instrument guided positioning and that the claims are directed to statutory matter within the definitions of 35 U.S.C. § 101. Applicants request that the rejection of 13, 16-23, 25, 26, 29-35 and 37-41 under 35 U.S.C. § 101 be withdrawn.

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Rejection of Claims 13, 16-23, 25, 26, 29-35 and 37-41 under 35 U.S.C. § 112

The Examiner has rejected claims 13, 16-23, 25, 26, 29-35 and 37-41 under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants respectfully traverse the rejection.

The Examiner contends that claims 13, 23, 31, 35 and 37 are indefinite because the Examiner alleges that the step of "aligning the at least one identified graphical axis marker with respect to the at least one graphics guide to align the instrument to the path" is incomplete. Applicants have amended claims 13 and 23 to indicate that after the alignment occurs the actual instrument is moved on an actual path toward the actual target based on a virtual path identified during the alignment. Claims 31, 35 and 37 have been amended to be dependent claims upon claim 23. Applicants respectfully submit that claims 13, 23, 31, 35 and 37, as amended, adequately recite how the graphics guide is used to align the actual instrument with an actual path to an actual target.

With respect to claim 16, the Examiner contends that the claim conflicts with its dependent claim 13 since claim 13 recites constructing and rendering a graphical axis marker and claim 16 recites using an existing feature as a graphical axis marker. Applicants have amended claim 13 to recite a method for framing path guides. Applicants respectfully submit that claim 13, as amended, corrects any prior inconsistencies.

Applicants respectfully submit that claims 13, 16, 23, 31, 35 and 37, as amended, correct any prior indefiniteness and request that the rejection of the claims under 35 U.S.C. § 112, second paragraph be withdrawn.

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Conclusion

Applicants respectfully submit that claims 13, 16-23, 25, 26, 29-35 and 37-43, as amended, are in condition for allowance and request that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the undersigned should he have any questions in this matter.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Michele L. Conover".

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